

# GEOGRAPHIC SCHOOL BULLETINS

OF THE NATIONAL GEOGRAPHIC SOCIETY, WASHINGTON 6, D.C.

FEBRUARY 14, 1955

VOL. XXXIII, NO. 18

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500 United States-trained Civil Guards, augmented by reserves when necessary. The country boasts more schools than soldiers, since its army was abolished by the constitution of 1949.

But high standards of education plus racial and economic unity give Costa Rica a Switzerland-like stability and strength that usually holds plotters at bay. Ninety percent of its people are of almost pure Spanish stock. Coffee, bananas, and cacao make for a strong export economy, creating a favorable balance of trade that brings money in.

The rich, volcanic soil of Costa Rica's central plateau produces a December harvest of red coffee berries of the highest quality. On the pleasant lowlands along the west coast the banana crop flourishes, free from the dread sigatoka disease which rotted plantations facing the Caribbean. Costa Rican planters, first to grow export bananas on a large scale, rebounded from the ravages of sigatoka by removing their bananas to the west and turning their land over to abacá, immune to the disease. Abacá yields a valuable fiber. Cacao has recently climbed to third place on the export list. Processed and respelled, it becomes cocoa.

Visitors stepping ashore at Puerto Limón (Lime Port), largest and most important east-coast harbor of this agricultural nation, find a warm Latin greeting. Cordial "Ticos"—their nickname springs from the habit of adding the diminutive *ico* or *tico* to many words—are proud of the profusion of blossoms that always impresses tourists. Orchids, the national flower, grow everywhere. A thousand varieties decorate this land where the plant life of two continents meets, to the joy of botanists.

Gaily painted oxcarts creak along country lanes, their designs and colors telling the story of where they were made, for each section of the country has its own taste. "Creak" is not the right word, say the Ticos. "Sing" is more like it. Each driver sees to it that his ungreased wheels squeal a special tune so his friends will know he's coming before they can see him.

A remarkably even spacing separates the little farming villages in the interior. It's no coincidence that they are just seven miles apart—a day's journey for a ponderous yoke of oxen.

Farther inland, stands of timber mat the

**Costa Rica's 2,000 Schools Absorb 15 Percent of the Budget. "Ticos," Proud of Their Top-Notch Education, Treat Teachers with Respect. They Pack the Stadium at San José to Cheer Student Gymnastic Exercises Marking the Nation's Independence Day—September 15**

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**Christmas Harvest**—Under December's warm sun, coffee pickers hoist heaping baskets of ripe red berries into bright-painted oxcarts on an upland plantation. High-quality coffee is Costa Rica's top export.

## Costa Rica's Rich Coast Extends from Sea to Sea

Columbus—Costa Rica's first visitor—gave it its enduring name, "rich coast." Travelers today sense the same tropical opulence as they sail along the Atlantic shore. The land unfolds off the starboard bow of Panama-bound freighters, a low line rimming the blue Caribbean, feathery with palm and bananalike abacá leaves. The mountains beyond slash a jagged pattern on the horizon.

On his last voyage to the New World, 1502, the Great Navigator coursed this coast, seeking a short cut to fabulous Cathay. Natives wearing gold earrings caused him to remark that here was more gold than Hispaniola had shown him in four years.

Today, Costa Rica's 898,000 inhabitants worry little about gold, although their mountains certainly yield some. Other problems face them—the question of political security in the turbulence that once more rocks Central America.

Small as it is—half the size of Maine and next to last in population among the six Central American nations—Costa Rica's prosperity makes it a tempting target for political adventurers. Defense depends on some

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## Tibet-India Trade Hangs by a Thread

Not even such a massive wall as the Himalayas completely stifles trade. Though no vehicular road crosses the "top of the world" to join Tibet and India, rugged trails serve as footing for man, mule, and pack pony. One brings to India, by way of its protectorate, Sikkim, traditional cargoes of Tibetan wool, hides, musk extract for perfume, yak tails, and prayer wheels. Return caravans carry salt, tea, cotton goods, molasses, hardware, and small household articles.

For crossing wild mountain torrents or yawning crevices, the traders depend on slender, precarious strands of vegetable rope or cane. Sometimes a single rope provides the only footing (below).

Such bridges have served since the dawn of history along the footpaths of the world's primitive areas. Hanging from towers or strong trees on either side of streams, they employ the same engineering principle—suspension—that holds up the Golden Gate Bridge.

But in Sikkim such spans no longer suffice. To speed trade, engineers are building a 27-mile ropeway that will leap the ruggedest stretch of the mountains like a continuous ski tow. A similar mechanism, 14 miles long in neighboring Nepal, is already in operation. Its cable-hung cars, propelled by electricity, add a down-to-earth touch to out-of-this-world scenes of orchid-spotted valleys and ice-capped peaks.

**References**—Tibet and India appear on the Society's map of Asia and Adjacent Areas. *National Geographic Magazine*, Aug., 1948, "Cane Bridges of Asia" (9 photographs).





LUIS MARDEN, NATIONAL GEOGRAPHIC STAFF

**Girls Go One Way, Boys the Other. The Common Object: Exchange of Smiles and Flirtatious Notes. This San José Custom, the *Retreta*, Stems from Spain's Chaperon System**

foothills and creep up the slopes of the high mountains (highest is Chirripó, a cool 12,860 feet and every inch a volcano). Mahogany, ebony, rosewood, and cedar raise their lofty heads from the huddling jungle. Cinchona bark winds up as quinine to fight malaria. Featherweight balsa helps keep American boys supplied with materials for model airplanes.

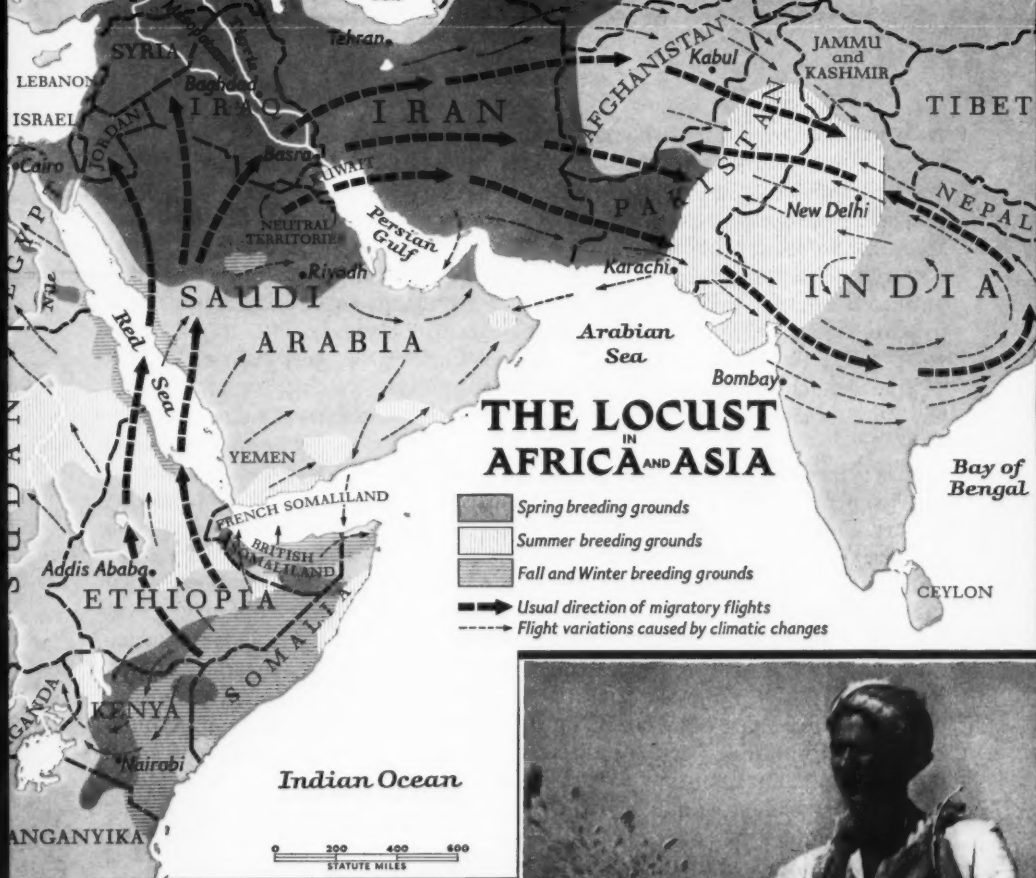
The central plateau holds most of the nation's population. Little wonder, since the temperature averages a balmy 75 degrees. The high mountain regions, too rock-bound to cultivate, are mostly devoted to pasturage. Here lie deposits of quartz, alabaster, mercury, sulphur, copper, and a little oil and granite among the volcanic rocks.

Neatly centered in the nation, San José, the capital, is by far the biggest city, about the size of Jersey City, New Jersey, or Toledo, Ohio.

Urban life in Costa Rica presents an especially pleasant feature, typical of all Latin American countries. Three times a week, in the evening, the young men and women of the community promenade around the central park. Men walk in one direction, girls in the other, while smiles and notes are exchanged. The custom originated in the days of closely chaperoned courtships in Spain, where sweethearts were never alone.

The promenade unfailingly charms Costa Rica's tourists, some of whom come from neighboring countries to bask in the climate of the uplands. Other visitors, more adventurous, seek the buried treasure that legend places on Cocos Island, 400 miles off the west coast. Pirates are thought to have buried a cool \$100,000,000 worth of booty in those tropical sands, owned by Costa Rica. But no one has found a single doubloon.

**References**—Costa Rica appears on the National Geographic Society's map of Mexico and Central America. Write the Society, Washington 6, D. C., for a map price list. *National Geographic Magazine*, Oct., 1946, "Land of the Painted Ox carts"; Feb., 1922, "Costa Rica, Land of the Banana"; *GEOGRAPHIC SCHOOL BULLETINS*, Oct. 5, 1953, "Latin American Birthdays Fall in September." *School and library discount price for Magazine issues a year old or less, 50¢; through 1946, 65¢. Write for prices of earlier issues.*



GERVAIS HUXLEY FROM PAUL POPPER  
NATIONAL GEOGRAPHIC MAP, DRAWN BY IRVIN E. ALLEMAN

Can you recognize a locust at 20 paces? Boys in Iraq can. In school they seriously study this type of spotting the way American boys learn airplane silhouettes in fun after hours. For no insect destroys so much of their fathers' crops as the short-horned grasshopper, or "locust" as it is called when on the rampage.

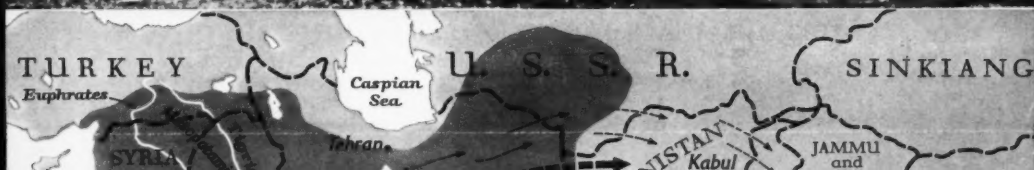
Locusts swirl down in a great black cloud, clearing off a grainfield neater than a Kansas combine. Those above are settling on African grassland. They destroy growing vegetation and set up future famine by laying eggs in the soil.

Locust plagues, following age-old paths (map, above) devoured crops of the Children of Israel; sacked Iran date groves in 1945. They have ravaged Asia from the Levant to Burma, Africa from Cairo to Cape Province, eaten their way from Canada to Mexico. In Iraq everyone joins the fight, sowing poisoned bran (right), spraying poison from airplanes. ("Report from the Locust Wars," *National Geographic Magazine*, April 1953).

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quick to strike. Washington ordered his men back—a painful retreat to Great Meadows where they felled trees and hacked out heavy logs for a simple stockade fort—Fort Necessity. It stood on low, swampy ground, approachable only from one natural causeway of solid earth. Around it, crowning the rolling Pennsylvania hills, lay the brooding forest. Grimly expecting an attack, the Americans hoisted their standard, greeted reinforcements bringing cannon, and settled down to wait.

The first shots of the battle of Fort Necessity crashed out in the morning stillness of July 3, 1754. Skulking in the woods, a strong detachment of French and Indians lobbed their musket balls toward the raw log redoubt. The Americans answered with grapeshot from the nine swivel cannon they had laboriously hauled over the Alleghenies. But rations were running low, the odds were heavy, and, worst of all, a drenching all-day rain soaked the powder and drove Washington's outposts to the shelter of sodden trenches. Horses and cattle stampeded from the fort and dropped before enemy bullets. Casualties inside the miserable little structure mounted. Creeping closer, the enemy fired, as Washington said, "from every little rising, tree, stump, stone, and bush."

At eight that evening a French officer came from the woods with an offer of comparatively easy surrender terms. Without transport or supplies, Washington had no choice but to accept. Next morning, the fourth of July, his survivors marched out of Fort Necessity, drums beating, colors flying. One company commander, Major Adam Stephen, had lost his clothes. He sighted his baggage on the shoulder of a Frenchman and, sputtering with rage, grabbed the portmanteau and kicked the culprit. French objections gave way to silent approval as the doughty major opened his bag and donned "a flaming suit of laced regimentals."

Dejected by this utter defeat in his first pitched battle, George Washington left his little fort in French hands and bivouacked with his men three miles away. Years later, on the anniversary of his one and only surrender, he wrote: "I did not let the 3rd pass off without a grateful remembrance of the escape we had."

On July 3 and 4 a celebration will commemorate the time when, as Washington candidly expressed it, he was "soundly beaten."

As for Fort Necessity, it stands again the way Washington built it. Until last year, its replica took the shape of a rectangle. But the archives of Columbia, South Carolina, yielded a description of the fort by one of the Carolinian soldiers who augmented Washington's little army in that fateful campaign. Archeologists proved the militiaman correct. The fort was actually round, 52 feet in diameter, with a log hut roofed by bark and skins. The entrenchments outside are thought to have confused earlier historians.

**References**—The area of Washington's early defeat may be located on the Society's map of the Northeastern United States. *National Geographic Magazine*, Jan., 1932, "The Travels of George Washington."

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EDWIN L. WISHERD, NATIONAL GEOGRAPHIC STAFF

**Where Washington Learned War's Bitterest Lesson**—This inaccurate replica of Fort Necessity has given way to a circular reproduction. Rolling Pennsylvania hills sheltered French attackers who taught the future general the experience of defeat.

## Washington Came of Age at Fort Necessity

"I heard the bullets whistle; and, believe me, there is something charming in the sound."

Later disavowed as the remark of a young man, George Washington wrote that comment two centuries ago, after his baptism of fire in the mountainous forests of western Pennsylvania. The strapping 22-year-old lieutenant colonel had led some 300 Virginians into what was, in 1754, the "wild West" of colonial America. His orders: Build a string of forts which would bar the French advance into the Ohio Valley. The ensuing action marked the future president's military coming of age.

The musket balls that crackled overhead so charmingly that May morning marked an end to the job of "envoy" that had been thrust on Washington's broad shoulders by his friend, Governor Dinwiddie of Virginia. Young Washington had probed this same frontier the year before, trying to persuade the French to keep their hands off. His mission failed, but his report made him famous. Now he was back again, a veteran with troops to support him.

The detachment reached Great Meadows, near what is now Uniontown, Pennsylvania. Scouts brought word of a French patrol holed up in a nearby valley. Colonel Washington reacted with a speed that typified his later career. His attacking force slashed its way across a densely wooded mountain ridge in the blackness of a rainswept night. In the morning, the mud-streaked colonials emerged on a ledge overlooking the French camp. Volleys ripped back and forth. The French surrendered, their commander dead. The Seven Years' War that was to signal the start of British imperialism and change the map of the world had begun.

That first successful skirmish encouraged Washington to press on to the northwest toward Fort Duquesne (Pittsburgh), but the French were

stormy South China Sea—7,000 Philippine Islands totaling a land area slightly larger than Arizona.

The American occupation force which steamed into the shelter of Manila's vast harbor in 1898 stepped ashore into a lazy town of carabao carts, pony-drawn carromatas, and street signs in Spanish, Tagalog, and Chinese. Philippine women embroidered Spanish lace mantillas and memorized the *Ave Maria* in Tagalog.

Old Spanish mission churches and monasteries looked like home to the Texan and New Mexican soldiers. In Kentucky-size Luzon—hub of the northern islands—slight, dark-skinned people of Chinese, Japanese, Malayan, Indonesian, and Hindu descent made Manila hemp or worked on the sugar and tobacco plantations.

Igorots, mountain tribesmen of Indonesian origin, toiled in the rice fields whose age-old terraces seemed to mount the misty slopes like giant staircases. Everywhere on the islands disease and poverty lurked.

American doctors launched a large-scale health program which prevented widespread epidemics, cut the mortality rate by more than half, and turned the Philippines into a healthy country.

American teachers planned an educational program for the islands which reached the farthest southern group around Mindanao. Only shortly before, that island spelled pirates, slavery, and smugglers. Schools sprang up in the villages where Moros, warlike Malayan-Moslem spearmen, had raided. Hand-to-hand battles between Moslem and Christian subsided.

**Beast of All Burdens**—Ambling homeward after a day's work on the plantation, this carabao, plow horse of the Philippines, gives young master a ride.

NATIONAL GEOGRAPHIC PHOTOGRAPHER  
J. BAYLOR ROBERTS



American money poured in. Contractors explored the central Visayan islands of Samar, Panay, Leyte, and Cebu for mineral deposits. The Insular Lumber Company turned the palm-thatched fishing village on the island of Negros Occidentales into a town of 15,000 people. Machinery ripped the jungle giants into wood for furniture and building materials. Engineers flung a steel bridge across the Hinigaran River. Railroad tracks carried fresh-cut mahogany to markets and ports. Foundries, drying kilns, and industrial smokestacks sprouted around one of the world's biggest hardwood lumber mills.

Miners dug gold, iron, and copper from rich deposits on Luzon and Mindanao. Cordage firms expanded the hemp industry. Soap-makers looked for steady sources of coconut oil. Manila, "The Pearl of the Orient," became the terminal for an ocean-trade shuttle. Ships plowed to the United States with sugar, pineapples, copra, to return with canned milk, meat, manufactures, and magazines.

Then World War II wrote a tragic chapter in Philippine history. During the Japanese invasion and Allied reconquest, Filipino and



## Philippines Forge Ahead under Magsaysay

Ramón Magsaysay's presidential car sped across the rice fields of central Luzon, answering the S O S of a tenant farmer mauled by his landlord.

Villagers quickly gathered to watch the "Big Guy" deal with the wrongdoer, a local cacique. It did them good to see their president force redress from this heretofore privileged man of class and position. Magsaysay had promised that he would rid the Philippine Islands of caciquism—a feudal social system left from the days of Spanish occupation—and here he was making good the pledge in their very village.

No longer would exploitation of the weak be blindly tolerated by their government, the villagers realized. They came forward and spilled out grievances which formerly threw them into the arms of the Huks—communist-led guerrillas who controlled much of the country before Magsaysay cleaned them out.

Now, after a year of high office, Magsaysay (pronounced mag-SIGH-sigh) stands supreme in the Philippines as the champion of the man on the street and on the farm. They may, and do, wire him collect about injustices suffered. The big, blunt leader also enjoys the respect of the caciques. Many of them, as members of congress, voted for the president's land-reform bill though it stripped them of traditional privileges.

Both cacique and tenant are putting into practice the better agricultural methods the land-reform act stresses. Thus are diverse elements of Philippine society beginning to pull together under the proddings of the ready presidential smile and the equally quick Magsaysay temper.

To bring the nearly bankrupt Philippine economy into the black, Magsaysay asked the United States for a two-year extension of special trade guarantees which under the Bell Act were to end in July, 1954. Since the United States is the Philippines' chief customer, U. S. tariff barriers would seriously cripple Philippine trade. Impressed with Magsaysay's new regime, government officials agreed to the extension.

The United States paid Spain \$20,000,000 for the luxuriant, palm-fringed isles in 1898 at the end of the Spanish-American War. Americans searched their maps to find the archipelago which lies 400 miles southeast of China in the

**Spanish Nuns Taught This Skilled Filipina Seamstress to Embroider Piña Cloth Made from the Fine Fiber of the Pineapple Plant**

NATIONAL GEOGRAPHIC PHOTOGRAPHER J. BAYLOR ROBERTS







NATIONAL GEOGRAPHIC PHOTOGRAPHER J. BAYLOR ROBERTS

**Luzon's Staircase Farms**—For a hundred years primitive Igorot tribesmen labored to build these terraced rice fields. Heavy rainfall keeps paddies filled.

American fought together. Out of war's rubble emerged a new republic and a gleaming new capital, Quezon City, built northeast of Manila in 1947.

Today over half the 21,000,000 Filipinos live on Luzon; ninety-five percent are urban dwellers. A radio blares and a sewing machine hums in the typical home. Rubber-plantation workers in Zamboanga, living in grass huts on stilts over the water, read about their favorite Philippine movie idol. The wealthy eat imported United States delicacies and dance to a version of the Philippine rice-planting song transposed into a jazz favorite by Benny Goodman in 1947. Only the pygmy Negritos, roaming with poisoned spear and arrow, are untouched by Western influence.

Tagalog and English are most commonly spoken. Seventy percent of Filipinos are literate. The school inspector walks along a wild-pig trail, the only sounds he hears are the clank-clank of his coffee pot in his knapsack and the cries of a thousand tropical birds. He knows that pythons and man-eating crocodiles lurk in the shadows.

Until 1954, economic and political crises—the aftermath of war—fed a growing communist menace. But the vital leadership of 47-year-old Ramón Magsaysay ended that. The son of an idealistic teacher, Magsaysay was schooled at an early age in the principles of democracy. Ever since July 4, 1946, when the United States gave the Philippines independence, the question on American lips had been—can Filipinos govern themselves?

President Magsaysay's regime of personalized democracy, an American legacy, is the Philippine answer.

**References**—The Philippine Islands appear on the Society's map of The Far East. *National Geographic Magazine*, Sept., 1948, "Seeking Mindanao's Strangest Creatures"; Nov., 1944, "Mindanao, on the Road to Tokyo"; Feb., 1942, "Facts About the Philippines"; *GEOGRAPHIC SCHOOL BULLETINS*, Nov. 30, 1953, "Filipinos Cherish Freedom, Election Shows"; March 31, 1952, "Huks and Hillmen Harry Philippine Army."

